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oligonucleotide is capable of being extended and forming part of a nucleic acid extension product or directing the synthesis of a nucleic acid transcription product under said amplification conditions; and

a nucleic acid polymerase.

2 ~~493~~. (New) The kit of claim ~~492~~¹, wherein said polymerase is an RNA polymerase.

3 ~~494~~. (New) The kit of claim ~~492~~¹, wherein said amplification oligonucleotide includes a promoter sequence.

4 ~~495~~. (New) The kit of claim ~~492~~¹, wherein said amplification oligonucleotide does not include a label.

5 ~~496~~. (New) The kit of claim ~~492~~¹ further comprising an oligonucleotide probe capable of specifically hybridizing to a base sequence contained in said extension product or said transcription product to form a duplex stable for detection in the presence of non-target nucleic acid in said sample under nucleic acid assay conditions.

6 ~~497~~. (New) The kit of claim ~~496~~⁵, wherein said probe contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

7 ~~498~~. (New) The kit of claim ~~496~~⁵, wherein said probe includes a label.

8 ~~499~~. (New) The kit of claim ~~492~~¹ further comprising a target capture oligonucleotide having a third base sequence, wherein said third base sequence hybridizes to a fourth base sequence contained in said target nucleic acid under nucleic acid assay conditions.

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9 500. (New) The kit of claim ~~499~~⁸, wherein said third base sequence contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

10 501. (New) The kit of claim ~~499~~⁸, wherein the 3' terminus of said target capture oligonucleotide is capped or blocked to prevent or inhibit its use as a template for nucleic acid polymerase activity.

11 502. (New) The kit of claim ~~499~~⁸ further comprising a solid support for directly or indirectly immobilizing said target capture oligonucleotide, wherein said target capture oligonucleotide includes a fifth base sequence which does not hybridize to said target nucleic acid under nucleic acid assay conditions.

12 503. (New) The kit of claim ~~492~~¹ further comprising written instructions for performing a polymerase chain reaction method of amplification.

13 504. (New) The kit of claim ~~492~~¹ further comprising written instructions for performing a transcription-based method of amplification.

14 505. (New) A kit for amplifying a target nucleic acid sequence contained in a target nucleic acid which may be present in a sample, said kit comprising:

an amplification oligonucleotide containing a first base sequence which hybridizes to a second base sequence contained in said target nucleic acid under amplification conditions, wherein said first base sequence contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety, and wherein said amplification oligonucleotide is capable of being extended and forming part of a nucleic acid extension product or directing the synthesis of a nucleic acid transcription product under said amplification conditions; and

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a labeled oligonucleotide probe capable of specifically hybridizing to a base sequence contained in said extension product or said transcription product to form a duplex stable for detection in the presence of non-target nucleic acid in said sample under nucleic acid assay conditions.

¹⁴
15 ~~506~~. (New) The kit of claim ~~505~~¹⁴ further comprising a nucleic acid polymerase.

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16 ~~507~~. (New) The kit of claim ~~506~~¹⁵, wherein said polymerase is an RNA polymerase.

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17 ~~508~~. (New) The kit of claim ~~505~~¹⁴, wherein said amplification oligonucleotide includes a promoter sequence.

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18 ~~509~~. (New) The kit of claim ~~505~~¹⁴, wherein said amplification oligonucleotide does not include a label.

¹⁴
19 ~~510~~. (New) The kit of claim ~~505~~¹⁴, wherein said probe contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

¹⁴
20 ~~511~~. (New) The kit of claim ~~505~~¹⁴ further comprising a target capture oligonucleotide having a third base sequence, wherein said third base sequence hybridizes to a fourth base sequence contained in said target nucleic acid under nucleic acid assay conditions.

²⁰
21 ~~512~~. (New) The kit of claim ~~511~~²⁰, wherein said third base sequence contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

²⁰
22 ~~513~~. (New) The kit of claim ~~511~~²⁰, wherein the 3' terminus of said target capture oligonucleotide is capped or blocked to prevent or inhibit its use as a template for nucleic acid polymerase activity.

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23²⁰ 514. (New) The kit of claim ~~511~~²⁰ further comprising a solid support for directly or indirectly immobilizing said target capture oligonucleotide, wherein said target capture oligonucleotide includes a fifth base sequence which does not hybridize to said target nucleic acid under nucleic acid assay conditions.

24¹⁹ 515. (New) The kit of claim ~~503~~¹⁹ further comprising written instructions for performing a polymerase chain reaction method of amplification.

25¹⁸ 516. (New) The kit of claim ~~505~~¹⁸ further comprising written instructions for performing a transcription-based method of amplification.

26¹⁷ 517. (New) A kit for amplifying a target nucleic acid sequence contained in a target nucleic acid which may be present in a sample, said kit comprising:

a first amplification oligonucleotide containing a first base sequence which hybridizes to a second base sequence contained in said target nucleic acid 5' to said target sequence under amplification conditions; and

a second amplification oligonucleotide containing a third base sequence which hybridizes to a fourth base sequence contained in a nucleic acid sequence complementary to at least a portion of said target nucleic acid 3' to said target sequence under said amplification conditions,

wherein at least one of said first and third base sequences contains a cluster of at least four ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety, and

wherein each of said first and second amplification oligonucleotides is capable of being extended and forming part of a nucleic acid extension product or directing the synthesis of a nucleic acid transcription product under said amplification conditions.

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27 518. (New) The kit of claim ²⁶517, wherein each of said first and third base sequences contains at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

28 519. (New) The kit of claim ²⁶517 further comprising a nucleic acid polymerase.

29 520. (New) The kit of claim ²⁶519, wherein said polymerase is an RNA polymerase.

30 521. (New) The kit of claim ²⁶517, wherein at least one of said first and second amplification oligonucleotides includes a promoter sequence.

31 522. (New) The kit of claim ²⁶517, wherein neither of said first and second amplification oligonucleotides includes a label.

32 523. (New) The kit of claim ²⁶517 further comprising an oligonucleotide probe capable of specifically hybridizing to a base sequence contained in said extension product or said transcription product to form a duplex stable for detection in the presence of non-target nucleic acid in said sample under nucleic acid assay conditions.

33 524. (New) The kit of claim ³²523, wherein said probe contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

34 525. (New) The kit of claim ³²523, wherein said probe includes a label.

35 526. (New) The kit of claim ²⁶517 further comprising a target capture oligonucleotide having a fifth base sequence, wherein said fifth base sequence hybridizes to a sixth base sequence contained in said target nucleic acid under nucleic acid assay conditions.

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³⁵
~~36~~ 527. (New) The kit of claim ~~526~~³⁵, wherein said fifth base sequence contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

³⁵
~~37~~ 528. (New) The kit of claim ~~526~~³⁵, wherein the 3' terminus of said target capture oligonucleotide is capped or blocked to prevent or inhibit its use as a template for nucleic acid polymerase activity.

³⁵
~~38~~ 529. (New) The kit of claim ~~526~~³⁵ further comprising a solid support for directly or indirectly immobilizing said target capture oligonucleotide, wherein said target capture oligonucleotide includes a seventh base sequence which does not hybridize to said target nucleic acid under nucleic acid assay conditions.

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~~39~~ 530. (New) The kit of claim ~~517~~²⁶ further comprising written instructions for performing a polymerase chain reaction method of amplification.

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~~40~~ 531. (New) The kit of claim ~~517~~²⁶ further comprising written instructions for performing a transcription-based method of amplification.

~~41~~ 532. (New) A kit for amplifying a target nucleic acid sequence contained in a target nucleic acid which may be present in a sample, said kit comprising:

a first amplification oligonucleotide containing a first base sequence which hybridizes to a second base sequence contained in said target nucleic acid 5' to said target sequence under amplification conditions;

a second amplification oligonucleotide containing a third base sequence which hybridizes to a fourth base sequence contained in a nucleic acid sequence complementary to at least a portion of said target nucleic acid 3' to said target sequence under said amplification conditions.

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wherein at least one of said first and third base sequences contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety, and

wherein each of said first and second amplification oligonucleotides is capable of being extended and forming part of a nucleic acid extension product or directing the synthesis of a nucleic acid transcription product under said amplification conditions; and

a labeled oligonucleotide probe capable of specifically hybridizing to a base sequence contained in said extension product or said transcription product to form a duplex stable for detection in the presence of non-target nucleic acid in said sample under nucleic acid assay conditions.

42/ ~~533~~. (New) The kit of claim ~~532~~, wherein each of said first and third base sequences contains at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

43/ ~~534~~. (New) The kit of claim ~~532~~, wherein at least one of said first and third base sequences includes a cluster of at least four ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

44/ ~~535~~. (New) The kit of claim ~~532~~ further comprising a nucleic acid polymerase.

45/ ~~536~~. (New) The kit of claim ~~535~~, wherein said polymerase is an RNA polymerase.

46/ ~~537~~. (New) The kit of claim ~~532~~, wherein at least one of said first and second amplification oligonucleotides includes a promoter sequence.

47/ ~~538~~. (New) The kit of claim ~~532~~, wherein neither of said first and second amplification oligonucleotides includes a label.

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48 539. (New) The kit of claim ⁴¹532, wherein said probe contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

49 540. (New) The kit of claim ⁴¹532 further comprising a target capture oligonucleotide having a fifth base sequence, wherein said fifth base sequence hybridizes to a sixth base sequence contained in said target nucleic acid under nucleic acid assay conditions.

50 541. (New) The kit of claim ⁴⁹540, wherein said fifth base sequence contains one or more ribonucleotides modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

51 542. (New) The kit of claim ⁴⁹540 wherein the 3' terminus of said target capture oligonucleotide is capped or blocked to prevent or inhibit its use as a template for nucleic acid polymerase activity.

52 543. (New) The kit of claim ⁴⁹540 further comprising a solid support for directly or indirectly immobilizing said target capture oligonucleotide, wherein said target capture oligonucleotide includes a seventh base sequence which does not hybridize to said target nucleic acid under nucleic acid assay conditions.

53 544. (New) The kit of claim ⁴¹532 further comprising written instructions for performing a polymerase chain reaction method of amplification.

54 545. (New) The kit of claim ⁴¹532 further comprising written instructions for performing a transcription-based method of amplification.

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